

AGENDA

MEETING: Maine Library of Geographic Information Board
DATE: Wednesday, March 19, 2003
TIME: 10:30 a.m. – 12:30 p.m.
LOCATION: Burton M. Cross Building, Conference Room 107
Website: <http://apollo.ogis.state.me.us/geolib/>

TIME MINUTES	TOPICS FOR DISCUSSION	LEADER
5 Minutes	Introduction and Approval of February 19, 2003 Minutes	John Holden, Chair Ed Suslovic, Vice Chair
15 Minutes	Delorme Presentation	
10 Minutes	Update on USGS funding	Harry Lanphear
40 Minutes	Finalize plans for digital Orthoimagery project	Dan Walters Larry Harwood
25 Minutes	Discuss 2 Year Budget: Bond and operating funds	John Holden Ed Suslovic
25 Minutes	Discuss Legislative Activities	John Holden Ed Suslovic

Maine Library of Geographic Information Board
Wednesday, March 19, 2003
10:30 a.m. – 12:30 p.m.

BOARD MINUTES

Board Member Attendees as follows:

1. John Holden, Chair
2. Ed Suslovic, Co Chair
3. Jon Giles, City of Portland
4. Paul Mateosian, City of Bath
5. Bob Faunce, Consultant to Lincoln County
6. Ray Halperin, Dept. of Transportation
7. Tom Asbeck, Photo Science, Inc
8. Jim Page, James W. Sewall
9. Harry Lanphear, DAFS/Office of the CIO
10. Dennis Boston, Central Maine Power
11. Barbara Charry, Maine Audubon Society
12. Marilyn Lutz, UMaine
13. Bob Doiron, Maine Revenue Services

Not in Attendance:

Jim Damicius, Maine Science Tech. Foundation
Will Mitchell, Mitchell Geographic's

Non-Board Member attendees:

Dan Walters, DAFS/OGIS
Larry Harwood, DAFS/OGIS
Jim Peterson, Delorme Publishing
Brook Delorme
Dick Woodbury, Maine House of Reps.
Jim Skillings, Delorme
Tim Bickford, Maine Army National Guard
Neal Allen, GPCOG
Greg Miller, Maine Forest Services
Jim Henderson, State Archives
Chris Bremme, Island Institute
Don Garrold, Town of Searsport
Bill Duffy, Northern Geomantics
Paul Cyr, James W. Sewall CO.
Tom Howker, BIS

Introductions:

John Holden welcomed and thanked the Committee and Guests for their a

Motion to approve minutes of the January 15, 2003

John presented the minutes of the February 19, 2003 for approval as writ
motioned to accept and Harry Lanphear seconded the motion for approval
was caught in the first section of the minutes Report from digital parcels S

Committee under "Questions and Comments" the first small paragraph after third bullet
should have read *"This is all preliminary and the Committee will be meeting next Thursday,*

February 27th and will report back to the GeoLibrary Board with a formal recommendation in two times out. Not Parliamentary. Robert Doiron moved to have corrected and correction has been made. No further discussions or comments. The vote was unanimous, minutes approved by the Board.

Delorme Presentation

Came to inform and educate the board on state of the art technology that Delorme has purchased in the field of digital remote sensing. And secondly we are looking for support from this Board to offer an expression of interest to the USGS to investigate new technologies in this field.

One of the innovated things we have embraced is the purchase of what we believe is the state of the art digital remote sensing. We purchased a Legis System with an ADS 40 and an ALS 40 remote sensing. Our hope is that the Board would have an opportunity to issue an RFI (request for information). We all know the circumstances that unfolded which made it impossible for the board and frankly we support the direction that the board took. The detriment to that for a company like Delorme is the board was pigeon holed into going into that one way direction for the data collection for this project.

Brooke Delorme, from Delorme, spoke with Barbara Ryan from USGS and a number of their scientist and these people understand the technology that Delorme has invested in and are very excited about working it. Delorme presented USGS with a one page description of what Delorme was purchasing and what there plans were on using this product. This created a ripple effect thorough the USGS community nationwide and Delorme heard back from people as far away as Hawaii. The people who are scientist in USGS really understand and wanted to work with Delorme. USGS told Delorme they needed to seek out an innovated partnership and the best way to accomplish that was to go back to the Maine GIS Board and look for their support. This is the reason why we are here today.

Delorme recognizes the effort the board has made to get to this point and we by no means want to get in the way of that progress; they do however, want to make sure that the board knows what options are available for this data collection and what is available in the State of Maine.

An airborne remote sensing system - a line scan camera from Mika the ADS 40 and the LIDAR system, a light detecting ranging system, a laser scanner collecting 30,000 points a second (collecting elevation model as we are flying). The two will be synchronized. The strong point of this plate form is medium resolution type work similar to what is planed here for the Maine project. Delorme's long term goal is that they do not plan on being in the contract business or the services business; it is develop digital models, 3-D models in urban areas around the country. This is the reason why we bought it as well as to update our street data base. We will be flying a large part of Maine with this and we felt obligated to the board about it.

The line scan camera itself has a ten 12,000 pixel sensors, 3 of those are for color RGB and 1 for infrared, which combined can be used for vegetation indexing. In addition to that there is a pair of sensors (black and white) that create nearly twice the resolution as the color attenuator straight down and two forward to aft to collect stereo. We will be getting elevation models out of this from the LIDAR that can be used for the orthorectification of the imagery both at the stereo we can go and do more detailed elevation modeling as well. You can not really compare resolution completely; I believe there is more information content in

the imagery with this product than there would be in a digital frame camera, such as the Emerge camera due to the bare filtering that is done.

Questions/Comments

- ◆ Have you used this technology in a similar project somewhere?
 1. No, this is very new to Delorme. It is not new technology this is basically technology from satellites inline scan camera. It's been applied for a number of years by a few firms, one in the US. There are currently 7 in operation right now and about 2 or 3 more that has been sold in the US and is coming along very rapidly. Delorme has not been in the data accusation business so this is brand new to us.
- ◆ What is the USGS innovative partnership program? How will this program work in relationship to this project or other projects?
 1. Delorme's understanding is that if both parties are willing to work then they seek any sort of innovated way to make things work contractually.
 2. An innovated partnership is where we pull private and government forces together to push the envelope on either technology or data collection. There have been examples of this in NJ and NY where they have developed GIS. The offer that Delorme made to USGS is if they were to do something in this area was we would **not** ask them for any money other than support. We believe this is extremely cost effective product and this type of data collection we can afford to do that with them. It cuts out a lot of steps in the process, for example, less hand work in the orthorectification.
- ◆ This pitch does not have to be through the short term, we think there is a lot of work being done in this field and we have access to this equipment and if it is what Delorme thinks it is, it would be a shame not to try to work in the State of Maine and produce a product. If nothing else maybe a pilot project. This is the only plane in the world that has both a LIDAR and line scan camera.
- ◆ The board thanked Delorme for there presentation and the Chair requested a formal written presentation on how we would accomplish this would be appropriate, and we can take action on it in a future meeting. As Delorme acknowledged, the board has to move on some issues which we have already labeled into some things now. We will take a look at this, also it may be appropriate to get more information on the technical end of this product and we will carve sometime for that as well.
- ◆ It is great to participate in new projects but there are also some cautions. One of these being we have desperate need in getting a product and the product needs to be in the hands of the customer community as soon as possible. We are in a funding position as a board, in that we need to maintain neutrality in terms of the things that we do. We do not know how this would contemplate into that arena. We need to get on with the business of getting the best value for the money that seems to be on hand.

End of Comments and Questions.

Update of USGS funding

With the initiation from the CIO's office and a push from the Delegation, especially from Senator Snowe and Senator Collins we will be able to get the federal match for our 2.3 million dollar bond. The letter received by the CIO's office was taken to Crombie Garrett at

the Attorney General's Office and he was comfortable that this letter would give access to the full 2.3 million bond money. Obviously, the inclined piece is a little different than normal but Mr. Garrett felt this was perfectly acceptable to get at the whole bond issue. We will have some work to do in this area with USGS in finding out how much money they will need in April and May.

The CIO's office or the Commissioner or the Governor's office will be forwarding to the Delegation a letter of appreciation for their efforts.

The next step would be to have a specific discussion with the Attorney General Office and Dale McCormick from the Treasury's office to speak specifically about the mechanics of what we need to do to get access of the bond money.

The cost estimate in the letter of 2.8 million dollar project; does that mean 1.4 million of the bond money will be going towards that or more than that because some of the is inclined?

1. The 2.868,517 is based on the preliminary information we gave them and our understanding is that they will match up to the 1.6 million over the two year period.

No questions or comments.

Finalize plans for digital Orthoimagery project

A two page report was passed out along with the new maps based on the comments from the last meeting and based upon the new USGS numbers.

Larry went over the Maps with the board. He pointed out the areas of difference from the last map. In Tier A we included more of the populated area; such as Caribou, Fort Fairfield and Presque Isle. We have expanded the area to include Bucksport and Winterport. Major change in the southern area is an advance up the coast. We expand Tier C area slightly out in the areas that had no population what so ever and I did not feel that would be a problem for anyone.

Dan reviewed the budget spreadsheet which relates back to the map. This is a two year statewide project totaling 3.2 million dollars with USGS providing 1.6 million and mapping funds both in kind money and cash. The project will be broken down into two separate contracts; one for year one and one for year two. Dan and Larry are very focused on the logistics and finances for year one right now.

Our recommendation is to purchase the Citipix digital Orthoimagery and it covers about 14 hundred square miles in southern Maine, which is depicted on the Map. Given that we are proposing a four Tier resolution. We have Tier A, B, C that we have discussed at prior meetings and of course Citipix is at yet a greater resolution, which translates us in having four Tiers as apposed to three. We are proposing to develop 10 meter DEMs for both Tier A and B; for two reasons:

2. USGS feels firmly that having the 10 meter DEMs will improve the products for both Tier A and B.
3. The production 10 meter DEMs has been very high GIS Executive Council data priority list for about five years and this presents a good opportunity to get this done and it going to be very beneficial for other projects.

We also recommend that even though we are acquiring Citipix that we would still re-fly and develop the 10 meter DEMs for that same coverage area but not develop the Ortho's. The

reason being if the communities do choose to take the photography to develop Ortho's from the 2003 photography they would have the digital elevation models and the photography to do it, at their own expense.

We propose to only collect aerial photography for Tier C. Looking at the budget it would have cost this project almost \$500K dollars to develop the Orthoimagery from that photography. Seeing that and considering this is a local more municipal oriented project it would be not prudent to potentially spend a 1/6 of the budget on that territory in the first two years. However, the board may want to consider building that cost into year three if some other funding materializes.

The project is going to be subject to climate and weather conditions and snow melt; Dan and Larry need some flexibility in how the aerial photography is captured. Larry has identified year one and if the weather does not cooperate we may not be able to fly that area but it may be good enough weather to fly the coast. We need to maximize the collection of Aerial photography when we can, so the work order in the budget we prepared we would like to pad the aerial photography budget to give us latitude to go beyond the scope of year one relative to the collection of aerial photography. To make this project successful that flexibility is going to be authorized in some way. Lastly, the other component is to complete 1996-98 digital Orthoimagery for Tier C, which is the black area noted on the map. This would be one of the areas to complete first and get those into the Library.

Dan went over the Recommended Two-year Budget for Digital Orthoimagery Project line by line with the board.

- Tier A (expanded sq.mil from 3,402 to 3,980) – Totals:
Photos= \$167,160
DEMs \$280,893
Orthos \$480,548
Mosaic \$160,183
- Tier B (decreased due to the increase in Tier A from 5,918 to 5,330 sq. mil.) – Totals:
Photos = \$213,200
DEMs = \$94,441
Orthos = \$160,954
Mosaic = \$53,651
- Tier C (the only thing we will do is complete the 1996 DOQQs = \$20,000

Estimate for year 2003 = \$1.6 million dollars and 2004 budget totals \$1.7 and Grand total for the project 3.3 million dollars. USGS share is 1.5million and Maine share 1.5 million. Citipix would not be considered a cost share. Maine total would be 1.7 which includes the share of 1.5, Citipix 137,104 and GPCOG 53,000.

Questions and Comments

1. The two years that you have discussed is two to acquire the data or raw collection.
What is the time frame to get the complete product in our hands in a usable form, not the Citipix issue but the USGS related issue?
 1. The actual raw data collection is only going to take place in April and May because Aerial photography all flown leaf off. Once they have concluded in May the production of the DEMs and Orthoimagery will take place almost

immediately and will continue in theory right until next April when they will fly the next round of photography and commence with the production phase immediately after that season. Within 13 -14 months all the raw data will be collected plus by the 11 month of production time in that and another 10months of production time in after that. Our hope is to get this done in the two year period.

2. Citipix would be acquired as soon as the board authorizes that purchase.
2. We are only purchasing Citipix because it is not in the public domain, correct? And once we have acquired it we can put it in the public domain?
 1. Yes, the contract we have seen so far is pretty clear. Are negotiations have been very clear that the library can only use public funds particular bond funds to purchase information that will go into public domain. They meaning Glob explorer, the folks that own the data. *This would be another question for our Attorney General just to make sure.*
3. The board wants to be absolutely clear that we get a perpetual use and disbursal license if not complete out right ownership.
 1. We have discouraged them in even using the word license because that's contrary to what the purpose is. We don't know if a letter or talk with the AG's office to find out what is required.
 2. It can be a part of the Contract for Purchases. There is specific language for that.
4. Tier B by 2004 will be done, correct?
 1. Yes, the goal is to have all of Tier A, B, done right down to digital orthos and also have collected the Aerial photography for Tier C.
5. Will we be purchasing the Orthoimagery directly from Citipix for the greater Portland council of governments the \$53,000 are we getting a service for that or is that effectively a brokers fee for bringing Citipix to the table?
 1. We are purchasing the imagery directly from Globe Explorer and the \$53,000 as outlined in the spreadsheet will go to GPCOG to cover the expenses they incurred in that project due to the non participation by towns for which Ariel photography and DOQQs were produced but they were never reimbursed. So, yes it is a brokerage fee.
6. Have we actually looked at the Citipix product?
 1. Yes, and Larry has some examples of the photography.
1. The Staff did a wonderful job at revising the areas of Tier A, B and C and secondly they have done a great job in laying out the project.
2. The areas that are covered by Citipix are going to be flown this year as well correct and are images 2 or 3 years old?
 1. Yes, but it will not be produced into digital ortho. We will produce the 10 meter DEMs which will give any community the opportunity to work with a vendor to produce those orthos for 2003 photography pictures.
 2. The Citipix images are from April 28-29, 2001.

3. Is it a concern that the Citipix images are a few years old right out of the blocks and we will be producing final product of it, versus if you waited?
 1. That is one of the trade offs. Citipix imager is at a higher resolution which we felt was on the positive side of recommending acquiring that and it is completed so we can put it right into the library for us almost immediately.
- Whether the board decides to purchase Citipix imagery or not Portland's municipality has the license to use it. I think GPCOG's offer to move it into the public domain is a good thing for the geolibrary to consider because it takes a very good data set and moves it into the public domain where everyone can access it. If the board does not want to pay the brokerage fee, it might send a bad message to other public agencies that enter into use licenses in the future or into projects where they may want to make it available to a wider audience. The board is under no obligation to pay the fee, but unfortunately moving that data into the public domain does limit GPCOGs ability to recoup the cost which that they were hoping to recoup over the long haul by reselling that data.
- The licenses are held by Globe Explore so that if any future licensing of that data to public or private entity the revenues would go through Globe Explore, correct? The \$53,000 then is not an evaluation of future revenue loss but of expense to date?
 1. GPCOG is the reseller, and yes current expenses.
- Would any of the money going into the GPCOG go to municipalities who had contributed money toward the project?
 1. No, I guess you would say it to be a subsidized for those communities that did not participate but in order to have a complete project we nonetheless had the entire region flown.
1. How does the board feel about the overall approach to this project granted there is still some discussion yet on the Citipix GPCOG line? The logistics of the next steps would not impact what is planned over the next six months. We do not need to make a decision on Citipix today. The staff just needs to given the authority to sign the cooperative agreement with USGS for or year one to give us a budget of approximately 1.6 million.
2. Has there been discussion with USGS about using digital elevation models other than developing the 10 meter model that may exceed the 10 meter specification.
 1. The staff has not discussed that at any length.
3. Does the State enter into any Use licenses say with SPOT imagery that extended sole to the state agencies and not to the municipalities.
 1. We have extended to the municipalities and only limited not to extend to the private sector.
1. We do not feel the Citipix fee should be included in the 3.2 million dollar mapping project because you can not use federal matching funds to buy products. For the GPCOG should not be included as well, they should apply for grant that would be more appropriate.
2. Chair suggested to move ahead on year one project as outlined in the budget and authorize Dan's office to proceed with year one 2003.

1. Can we do that if we are not authorizing the whole thing, are we compromising the federal match? Why not take action on the two year plan to be invested as necessary in the near future.
2. Ray Halperin moved to accept the budgetary and functional plan submitted by Dan Walters with the exception of the Citipix and GPCOG components of the budget.
 1. Seconded by Bob Faunce
 2. Abstained: James Page and Tom Asbeck
 3. Votes – 9 yes
 4. Opposed – none

More Discussion:

1. In the Susan Collins letter it mentioned a total of \$2.8 million and the budget here is 3.3, is there a problem with this?
 1. The first paragraph notes they would match State bond up to 1.6 million and that is where we are heading and the 2.8 was the initial work plan we had sent to them.

We will need to enter into an agreement with USGS very soon and their original agreement will include doing the full boat for Tier A from photography to Orthoimagery and what we would do is an amendment to that contract shortly there after to adjust for that as far as the Citipix area.

- Do you have a cash flow picture that shows when you are going to spend this money?
 - Not yet, as soon as we get the first cooperative agreement that will spell out what our payment requirements will be with USGS and we have to talk to the AG's office to match that up with when they authorize the bond. Which I believe is quarterly.
- 1. Just to restate the motion, is to proceed with this project as outlined in the budget for the two year project with the exception of Citipix and GPCOG to be discussed at a future time.
 1. That is correct.
- 2. The staff is going to need some flexibility from the board in directing Ariel photograph between years depending upon weather conditions. We would like it noted in the minutes or approved by the board.
 1. We are approving the two year plan and if there are adjustments that need to be made within the two years the board does not have a problem with that. So, moved to accept by Ray Halperin.
 2. All in favor – Yes
 3. None apposed
 4. None abstained

No more discussion

Discuss 2 Year Budget: Bond and operating funds

Dan Walters submitted a draft spreadsheet for Budget scenarios through April 2005 to the board, which was a snap shot of what was in the original resolve 23 study based on the original estimates we wanted to accomplish.

Along with the original estimates the staff showed the Original Bond Proposal dollars as well as a 38% across the board figures and Alternative MeGIS funding proposals with beginning and ending dates.

Questions/Comments

1. You can add a road center line improvement could be done for the E911 center line updated.
 1. That is high on the GIS Technical Committee which is a sub-committee of the GIS Executive Council. There is no easy solution.
2. It's been carried over as an item desperately looking for funding for the last 4 years. Combined with everything else it always falls though the cracks.
3. If we had to duplicate the necessary hardware and software to really separate this library from other similar State resources it would be around 1million dollars?
 1. Yes, if we want to do it right. We would need to look at the system architecture.

Discuss Legislative Activities

There was a brief discussion of Ed Suslovic's GIS bond LD 740 "An Act to Authorize a General Fund Bond Issue in the Amount of \$8,200,000 for Use in Implementing the Maine Library of Geographic Information". Ed explained that he does not expect to get the full 8.2 million dollars. Also, there was a brief discussion of the State Planning Office 2 million dollar planning bond.

The next GeoLibrary Board meeting will be held on Wednesday, April 16th from 10:30 am to 12:30 pm at the Burton M. Cross Building, Room 107.